

~~Patent Claims~~*We Claim As Our Invention*

1. A method for channel allocation in a radio communication system, which uses a CDMA subscriber separation method for transmitting information for communication connections via a radio interface between a base station (BS) and a radio station (MS), in which
- the radio station (MS) signals a request for a number of transmission channels (RU) for a communication connection in a signaling channel (RACH) to the base station (BS),
 - the radio station (MS) signals additional information about certain transmission conditions of the radio interface in the signaling channel (RACH) to the base station (BS), and
 - the additional information is evaluated by the base station (BS) and taken into consideration for controlling a transmitting power for a further signaling channel (AGCH) for allocating the requested number of transmission channels (RU) to the radio station (MS).
2. The method as claimed in claim 1, in which the first radio station (MS) determines as additional information a received level (RXLEV) for a general signaling channel (BCCH), sent by the base station (BS) with a constant transmitting power, with general information about the radio communication system.
3. The method as claimed in claim 1, in which the radio station (MS) determines as additional information at least one characteristic value which contains information on a received level (RXLEV), a bit error rate and/or a value proportional to the signal transit time between the radio station (MS)

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4. The method according to a preceding claim, in which a subscriber separation according to a TDMA method is additionally performed, a transmission channel (RU) being defined by a frequency band (B), a time slot (ts) and a CDMA code (c).

5. The method according to the preceding claim, in which the radio station (MS) determines, and signals to the base station (BS), a respective interference situation in the time slots (ts) as additional information.

6. The method according to the preceding claim, in which the additional information about the interference situation is taken into consideration by the base station (BS) for selecting at least one suitable time slot (ts) in which the number of transmission channels (RU) is allocated.

7. The method as claimed in a preceding claim, in which the information is transmitted in accordance with a TDD method, the information being transmitted from the radio station (MS) to the base station (BS) and from the base station (BS) to the radio station (MS) separated in time in a frequency band (B).

8. A base station (BS) of a radio communication
25 system which uses a CDMA subscriber separation method,
comprising

- a transceiver device (SEE) for receiving a request for a number of transmission channels (RU) for a communication connection in a signaling channel (RACH), and
- an evaluating device (AW) for evaluating information, additionally signaled in the signaling channel (RACH)

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation $f(x) = \int_0^x f(t) dt$. It is shown that $f(x)$ is a continuous function and that it satisfies the functional equation $f(x+y) = f(x) + f(y)$.

~~about transmission conditions of the radio interface
and for controlling a transmitting power for a further
signaling channel (AGCH) for allocating the requested
number of transmission channels (RU).~~

9. The base station (BS) as claimed in claim 8, in which the evaluating device (AW) takes into consideration as additional information a certain interference situation in a respective time slot (ts) for selecting at least one suitable time slot (ts) for allocating the requested number of transmission channels (RU), an additional subscriber separation according to a TDMA method being effected in the radio communication system.

10. The base station (BS) as claimed in claim 8 or
15 9, which is designed as a base station (BS) of a mobile
radio station or of a wireless subscriber access
system.

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